



Figure 3. Functional Block Diagram of the SMP211

[DX76 (SMP211 datasheet), Figure 3-Functional Block Diagram of the SMP211]

465. The SMP211 datasheet states that “The  $D_{MAX}$  signal from the oscillator limits the maximum duty cycle by gating the output driver.” [DX76 (SMP211 datasheet) at FCS1685481]

466. The oscillator in the SMP211 generates a maximum duty cycle signal. [(9/24/07 Ineq. Conduct Trial Transcript, Horowitz) 129:1-10]

467. The SMP211 datasheet confirms that the  $D_{MAX}$  signal from the oscillator is a maximum duty cycle signal. [(9/24/07 Ineq. Conduct Trial Transcript, Horowitz) 129:1-10].

**REDACTED**

**REDACTED**

**C. The Withheld Prior Art SMP211 Was Highly Material.**

472. Other than the label in Prior Art Figure 1, the '851 Patent does not refer to the SMP211. [DX105 ('851 Patent)]

473. Other than the label in Prior Art Figure 1, the prosecution history of the '851 Patent does not refer to the SMP211. [DX106 ('851 Pros. Hist.)]

474. The "References Cited" on the face of the '851 Patent do not include the SMP211. [DX105 ('851 Patent)]

475. The applicants never provided the SMP211 datasheet to the Examiner during the prosecution of the '851 Patent. [9/24/07 Ineq. Conduct Trial Transcript, Horowitz) 127:18-21]

476. The applicants never provided the SMP211 schematics to the Examiner during the prosecution of the '851 Patent. [(9/24/07 Ineq. Conduct Trial Transcript, Horowitz) 127:18-21]

477. The references cited in the '851 Patent and its file history contain no reference to the SMP211 product. [(9/24/07 Ineq. Conduct Trial Transcript, Horowitz) 128:3-9]

478. The references cited in the '851 Patent and its file history contain no reference to the SMP211 datasheet. [(9/24/07 Ineq. Conduct Trial Transcript, Horowitz) 128:3-9]

479. The references cited in the '851 Patent and its file history contain no reference to the SMP211 schematic. [(9/24/07 Ineq. Conduct Trial Transcript, Horowitz) 128:3-9]

480. There is no indication that the Examiner understood that the SMP211 was a prior art Power Integrations device. [(9/24/07 Ineq. Conduct Trial Transcript, Horowitz) 127:22-128:2]

481. The Examiner had no information about Power Integrations prior art SMP211 during the prosecution of the '851 Patent. [(9/24/07 Ineq. Conduct Trial Transcript, Horowitz) 128:10-14]

482. During the prosecution of the '851 Patent, the Applicants never explained to the Patent Examiner that if the prior art SMP211 were used in the prior art circuit shown in Figure 1 of the '851 Patent, the prior art discloses or suggests a PWM switch comprising an oscillator for generating a maximum duty cycle signal and a signal with a frequency range dependant on a frequency variation circuit as recited in claim 1 of the '851 Patent. [(9/24/07 Ineq. Conduct Trial Transcript, Horowitz) 131:2-16].

**REDACTED**

485. The SMP211 prior art is more relevant than the art before the Examiner. [(9/24/07 Ineq. Conduct Trial Transcript, Horowitz) 179:6-180:2].

486. The SMP211 datasheet raises a substantial new question of patentability for claims 1 and 11 of the '851 Patent. [(9/24/07 Ineq. Conduct Trial Transcript, Horowitz) 136:14-137:11].

487. If the prior art SMP211 were used in the prior art circuit shown in Figure 1 of the '851 Patent, the prior art discloses or suggests a PWM switch comprising an oscillator for generating a maximum duty cycle signal and a signal with a frequency range dependant on a frequency variation circuit as recited in claim 1 of the '851 Patent. [(9/24/07 Ineq. Conduct Trial Transcript, Horowitz) 131:2-11].

488. Information about the SMP211 contradicts the Examiner's reasons for allowance of the claims of the '851 Patent. [(9/24/07 Ineq. Conduct Trial Transcript, Horowitz) 139:4-13]

489. Information about the SMP211 contradicts the arguments made by Power Integrations for allowance of the claims of the '851 Patent. [(9/24/07 Ineq. Conduct Trial

Transcript, Horowitz) 139:4-13]

490. Power Integrations should have disclosed the SMP211 datasheets, schematics, or other information about the SMP211 device during the prosecution of the '851 Patent for at least the following reasons:

- Switch 90 is labeled "SMP211" in Figure 1 of the '851 Patent.
- Information in the SMP211 datasheet would have been relevant to the Examiner's misunderstanding of the switch 90 in the prior art.
- Evidence in the SMP211 datasheet contradicts Power Integrations' assertion that Figure 1 of the '851 Patent does not contain the oscillator elements required by the claims in the application
- The SMP211 is not cumulative of prior art before the Examiner.

[(9/24/07 Ineq. Conduct Trial Transcript, Horowitz) 138:1-139:3].

491. The Patent Office granted a Request for Reexamination of the '851 Patent and specifically stated that the SMP211 "raises an SQN [substantial new question]" as to the patentability of claims of the '851 Patent. [DX 601, pp. 8-9].

492. In its decision to grant the Request for Reexamination of the '851 Patent, the Patent Office stated with respect to the SMP211 that:

Such teachings are not cumulative to any written discussion on the record of the teachings of the prior art, were not previously considered nor addressed during a prior examination and the same question of patentability was not the subject of a final holding of invalidity by Federal Courts.

[DX 601, p. 9].

D. **Power Integrations Intentionally Withheld the Prior Art SMP211 and Deliberately Deceived the Examiner.**

1. **Mr. Balakrishnan and other inventors understood their duty to disclose prior art.**

493. At the time their application for the '851 Patent was filed, each of the three applicants signed and acknowledged under penalty of perjury their "duty to disclose information which is material to the patentability of th[e] application in accordance with Title 37, Code of Federal Regulations, § 1.56(a)." [DX106 ('851 Pros. Hist..) at FCS0000390-392]

494. The declaration signed by the applicants during their prosecution of the '851 Patent set forth 37 C.F.R. § 1.56 as follows:

**37 CFR 1.56 DUTY TO DISCLOSE INFORMATION MATERIAL TO  
PATENTABILITY.**

a) A patent by its very nature is affected with a public interest. The public interest is best served, and the most effective patent examination occurs when, at the time an application is being examined, the Office is aware of and evaluates the teachings of all information material to patentability. Each individual associated with the filing and prosecution of a patent application has a duty of candor and good faith in dealing with the Office, which includes a duty to disclose to the Office all information known to that individual to be material to patentability as defined in this section. The duty to disclose information exists with respect to each pending claim until the claim is cancelled or withdrawn from consideration, or the application becomes abandoned. Information material to the patentability of a claim that is cancelled or withdrawn from consideration need not be submitted if the information is not material to the patentability of any claim remaining under consideration in the application. There is no duty to submit information which is not material to the patentability of any existing claim. The duty to disclose all information known to be material to patentability is deemed to be satisfied if all information known to be material to patentability of any claim issued in a patent was cited by the Office or submitted to the Office in the manner prescribed by §§ 1.97(b)-(d) and 1.98. However, no patent will be granted on an application in connection with which fraud on the Office was practiced or attempted or the duty of disclosure was violated through bad faith or intentional misconduct. The Office encourages applicants to carefully examine:

(1) Prior art cited in search reports of a foreign patent office in a counterpart application, and

(2) The closest information over which individuals associated with the filing or prosecution of a patent application believe any pending claim patentably defines, to make sure that any material information contained therein is disclosed to the Office.

(b) Under this section, information is material to patentability when it is not cumulative to information already of record or being made of record in the application, and

(1) It establishes, by itself or in combination with other information, a *prima facie* case of unpatentability of a claim; or

(2) It refutes, or is inconsistent with, a position the applicant takes in:

(i) Opposing an argument of unpatentability relied on by the Office,  
or

(ii) Asserting an argument of patentability.

A *prima facie* case of unpatentability is established when the information compels a conclusion that a claim is unpatentable under the preponderance of evidence, burden-of-proof standard, giving each term in the claim its broadest reasonable construction

consistent with the specification, and before any consideration is given to evidence which may be submitted in an attempt to establish a contrary conclusion of patentability.

(c) Individuals associated with the filing or prosecution of a patent application within the meaning of this section are:

- (1) Each inventor named in the application;
- (2) Each attorney or agent who prepares or prosecutes the application; and
- (3) Every other person who is substantively involved in the preparation or prosecution of the application and who is associated with the inventor, with the assignee or with anyone to whom there is an obligation to assign the application.

(d) Individuals other than the attorney, agent or inventor may comply with this section by disclosing information to the attorney, agent, or inventor.

[DX106 ('851 Pros. Hist. ) at FCS0000391]

**REDACTED**

**REDACTED**

506. As of 1998, Mr. Balakrishnan was generally familiar with the process of applying for a patent. [(9/21/07 Ineq. Conduct Trial Transcript, Balakrishnan) 54:18-21]

**REDACTED**

508. Mr. Balakrishnan understood at the time that he filed the applications for the patents-in-suit that he had a duty of candor to the Patent Office. [(9/21/07 Ineq. Conduct Trial Transcript, Balakrishnan) 59:4-14]

509. Mr. Balakrishnan understood that the duty of candor continued throughout the

entire patent application process. [(9/21/07 Ineq. Conduct Trial Transcript, Balakrishnan) 72:17-20]

**REDACTED**

514. At the time that he filed the applications leading to the patents-in-suit, Mr. Balakrishnan understood that he needed to disclose anything “that’s relevant to the patent that’s in the prior art.” [(9/21/07 Ineq. Conduct Trial Transcript, Balakrishnan) 59:4-19]

515. In 1998, Mr. Balakrishnan understood that he could not get a patent on something offered for sale or sold more than a year before he filed his application. [(9/21/07 Ineq. Conduct Trial Transcript, Balakrishnan) 69:8-20]

516. At the time that he filed the applications leading to the patents-in-suit, Mr. Balakrishnan understood that he had an obligation to disclose prior art. [(9/21/07 Ineq. Conduct Trial Transcript, Balakrishnan) 60:20-61:6]

**REDACTED**



**REDACTED**

519. Mr. Balakrishnan understood at the time he filed the application leading to the '851 and '366 Patents that he had an affirmative duty to disclose to the Patent Office prior art that related to what he thought was new in the claims of the applications. [(9/21/07 Ineq. Conduct Trial Transcript, Balakrishnan) 101:18-102:4]

520. Mr. Balakrishnan understood that during the course of an application, different prior art may become material that wasn't before when the original application was submitted. [(9/21/07 Ineq. Conduct Trial Transcript, Balakrishnan) 73:2-6]

521. Mr. Balakrishnan understands that he has an affirmative obligation to the Patent Office not to make misrepresentations during the prosecution of a patent application. [(9/21/07 Ineq. Conduct Trial Transcript, Balakrishnan) 94:18-22]

522. Mr. Balakrishnan understood that the Patent Examiner assumes that statements made by an applicant during the prosecution of a patent are true. [(9/21/07 Ineq. Conduct Trial Transcript, Balakrishnan) 94:23-95:2]

523. Mr. Balakrishnan understood that the Patent Examiner relies upon statements made by an applicant during the prosecution of a patent. [(9/21/07 Ineq. Conduct Trial Transcript, Balakrishnan) 94:23-95:2].

524. Mr. Balakrishnan understood that if the Examiner said, "I'm going to allow your claims because they include an element" that Mr. Balakrishnan knew was in the prior art, he had an obligation to correct the Examiner. [(9/21/07 Ineq. Conduct Trial Transcript, Balakrishnan) 95:21-96:3]

525. Mr. Balakrishnan would review the patent applications and claims from the perspective of an electrical engineer to make sure that they were technically accurate. [(9/21/07 Ineq. Conduct Trial Transcript, Balakrishnan) 55:17-56:12]

**REDACTED**

**REDACTED**

527. When he submits a patent application, Mr. Balakrishnan looks at Power Integrations products and other information Power Integrations knows regarding the prior art. [(9/21/07 Ineq. Conduct Trial Transcript, Balakrishnan) 68:1-6].

528. It is good assumption that Mr. Balakrishnan reviewed the '851 patent applications and claims from the perspective of an electrical engineer to make sure that they were technically accurate. [(9/21/07 Ineq. Conduct Trial Transcript, Balakrishnan) 55:17-56:24]

529. It is fair to assume that Mr. Balakrishnan reviewed the '851 patent applications and claims from the perspective of an electrical engineer to make sure that they were technically accurate. [(9/21/07 Ineq. Conduct Trial Transcript, Balakrishnan) 55:17-56:20]

530. Mr. Balakrishnan reviewed all of the claims in a patent application before the application was filed. [(9/21/07 Ineq. Conduct Trial Transcript, Balakrishnan) 54:22-55:1]

**REDACTED**

532. During the prosecution of a patent, Mr. Balakrishnan would review any amendment that added or removed elements of a claim. [(9/21/07 Ineq. Conduct Trial Transcript, Balakrishnan) 55:2-16]

**REDACTED**

534. Mr. Balakrishnan has not done anything to search for additional prior art or references that would be relevant to the reexamination of the '851 Patent. [(9/21/07 Ineq. Conduct Trial Transcript, Balakrishnan) 90:1-8]

**REDACTED**

536. Mr. Balakrishnan does not know whether anyone at Power Integrations has

searched for additional prior art or references that would be relevant to the reexamination of the '851 Patent. [(9/21/07 Ineq. Conduct Trial Transcript, Balakrishnan) 90:12-16]

537. Mr. Balakrishnan does not know who collected the references cited of the face of the '851 Patent. [(9/21/07 Ineq. Conduct Trial Transcript, Balakrishnan) 74:14-18]

**REDACTED**

540. While the '851 Patent application was pending, Mr. Balakrishnan did not read all of the references cited on the face of the '851 patent. [(9/21/07 Ineq. Conduct Trial Transcript, Balakrishnan) 74:24-75:6]

**REDACTED**

542. In all of hundred issued patents and additional pending applications, Mr. Balakrishnan cannot recall ever identifying a Power Integrations product as a cited reference. [(9/21/07 Ineq. Conduct Trial Transcript, Balakrishnan) 71:2-7]

543. In all of hundred issued patents and additional pending applications, Mr. Balakrishnan cannot recall ever submitting a Power Integrations datasheet as a cited reference. [(9/21/07 Ineq. Conduct Trial Transcript, Balakrishnan) 71:8-13]

544. In all of hundred issued patents and additional pending applications, Mr. Balakrishnan cannot recall ever submitting a complete schematic as prior art. [(9/21/07 Ineq. Conduct Trial Transcript, Balakrishnan) 69:21-70:4]

545. In all of hundred issued patents and additional pending applications, Mr. Balakrishnan cannot recall ever submitting additional prior art that would be newly relevant because of amendments made to the claims during prosecution. [(9/21/07 Ineq. Conduct Trial

Transcript, Balakrishnan) 74:3-13]

546. Mr. Balakrishnan understood that the duty of candor to the Patent Office applies to all of the applicants involved in a patent application-including his co-inventors and attorneys.

[(9/21/07 Ineq. Conduct Trial Transcript, Balakrishnan) 65:2-12]

547. Mr. Balakrishnan has never discussed the duty of candor with Mr. Lund.

[(9/21/07 Ineq. Conduct Trial Transcript, Balakrishnan) 66:1-5]

**REDACTED**

2. **Mr. Balakrishnan and other inventors knew of the prior art SMP211 during the prosecution of the '851 Patent.**

549. Mr. Balakrishnan received a Masters degree in electrical engineering from UCLA.

[(9/19/07 Trial Transcript, Balakrishnan) 872:23-873:4]

550. Mr. Balakrishnan joined Power Integrations in 1988 as VP of design engineering.

[(9/19/07 Trial Transcript, Balakrishnan) 871:21-872:6]

**REDACTED**

552. In 1992, Mr. Balakrishnan was Director of Design Engineering at Power Integrations. [(9/21/07 Ineq. Conduct Trial Transcript, Balakrishnan) 51:5-14]

553. As of 1992, Power Integrations only employed about 30 people. [(9/21/07 Ineq. Conduct Trial Transcript, Balakrishnan) 51:15-18.]

554. As of 1992, there were only "maybe five or so" people in the design group managed by Mr. Balakrishnan. [(9/21/07 Ineq. Conduct Trial Transcript, Balakrishnan) 51:22-52:8]

555. In 1992, Mr. Balakrishnan was responsible for the design and development of integrated circuit products. [(9/21/07 Ineq. Conduct Trial Transcript, Balakrishnan) 52:9-14]

**REDACTED**

**REDACTED**

559. As of 1992, Power Integrations only offered five to ten products for sale.  
[(9/21/07 Ineq. Conduct Trial Transcript, Balakrishnan) 53:23-54:4]

560. As Director of Engineering in 1992, Mr. Balakrishnan was expected to have some familiarity with all of Power Integrations products. [(9/21/07 Ineq. Conduct Trial Transcript, Balakrishnan) 52:20-53:1]

561. In 1992, Mr. Balakrishnan had meetings at Power Integrations to discuss Power Integrations' products. [(9/21/07 Ineq. Conduct Trial Transcript, Balakrishnan) 53:2-5]

562. Mr. Balakrishnan probably reviewed Power Integrations' datasheets in 1992.  
[(9/21/07 Ineq. Conduct Trial Transcript, Balakrishnan) 53:6-8]

563. Mr. Balakrishnan probably read Power Integrations' application notes in 1992.  
[(9/21/07 Ineq. Conduct Trial Transcript, Balakrishnan) 53:6-8]

**REDACTED**

565. According to Mr. Balakrishnan, Power Integrations SMP211 was "introduced in the early '90s." [(9/19/07 Trial Transcript, Balakrishnan) 882:20-883:1]

**REDACTED**

567. Power Integrations SMP211 has been around since the early 1990s. [(9/19/07 Trial Transcript, Balakrishnan) 907:8-10]

**REDACTED**

**REDACTED**

571. A second SMP211 datasheet has a publication date of January, 1996. [DX 76]

**REDACTED**

573. Mr. Balakrishnan admits that the reference "SMP211" in Prior Art Figure 1 of the '851 Patent refers to Power Integrations' prior art SMP211 device. [(9/19/2007 Trial Transcript, Balakrishnan) 882:20-883:1]

574. Mr. Balakrishnan admits that the SMP211 and datasheets describing the SMP211 were publicly available when the '851 Patent was filed. [(9/19/07 Trial Transcript, Balakrishnan) 883:2-5]

575. Mr. Balakrishnan managed the group that designed the SMP211. [(9/19/07 Trial Transcript, Balakrishnan) 905:21-906:2]

576. Mr. Balakrishnan personally designed some of the circuits used in Power Integrations' SMP211 device. [(9/19/07 Trial Transcript, Balakrishnan) 905:21-906:2]

**REDACTED**

3. Mr. Balakrishnan and other inventors withheld other Power Integrations prior art.

**REDACTED**

**REDACTED**

589. Power Integrations did not provide any information about its SMP3 devices in its '851 Patent. [DX105 ('851 Patent)]

590. Power Integrations did not provide any information about its SMP3 devices to the Patent office during the prosecution of the '851 Patent. [DX106 ('851 Pros. Hist.)]

591. None of the SMP3 devices, SMP3 datasheet, or SMP3 schematics are listed

among the "References Cited" on the fact of the '851 Patent. [DX105 ('851 Patent)]

**REDACTED**

601. [DELIBERATELY BLANK]

**REDACTED**



**REDACTED**

606. A third SMP260 datasheet has a publication date of February, 1992. [DX 74; DX 122]

**REDACTED**

609. A second SMP240 datasheet has a publication date of February, 1992. [DX 70; DX 123]

**REDACTED**

**REDACTED**

619. Power Integrations did not provide any information about its SMP240 or SMP260 devices in its '851 Patent. [DX105 ('851 Patent)]

620. Power Integrations did not provide any information about its SMP240 or SMP260 devices to the Patent office during the prosecution of the '851 Patent. [DX106 ('851 Pros. Hist.)]

621. None of the SMP240 or SMP260 devices, SMP240 or SMP260 datasheet, or SMP240 or SMP260 schematics are listed among the "References Cited" on the face of the '851 Patent. [DX105 ('851 Patent)]

622. After the Examiner told the Applicants that, in his view, "the prior Art of record does not appear to disclose or suggest a PWM switch comprising an oscillator for generating a maximum duty cycle signal and a signal with a frequency range dependant on a frequency variation circuit", the Applicants never told the Examiner that the Pelley article disclosed an oscillator with a maximum duty cycle signal. [(9/24/07 Ineq. Conduct Trial Transcript, Horowitz) 182:9-19]

623. The Pelley article does not show an oscillator with an output labeled "D<sub>MAX</sub>" or "maximum duty cycle signal". [(9/24/07 Ineq. Conduct Trial Transcript, Horowitz) 183:4-8].

624. The Applicants never told the Examiner that in their view U.S. Patent No. 5,313,381 disclosed an oscillator with a maximum duty cycle signal. [(9/24/07 Ineq. Conduct Trial Transcript, Horowitz) 182:20-23]

625. The Applicants never told the Examiner that in their view U.S. Patent No. 5,461,303 disclosed an oscillator with a maximum duty cycle signal. [(9/24/07 Ineq. Conduct Trial Transcript, Horowitz) 182:24-183:3]

626. U.S. Patent No. 5,313,381 does not show an oscillator with an output labeled “D<sub>MAX</sub>” or “maximum duty cycle signal”. [(9/24/07 Ineq. Conduct Trial Transcript, Horowitz) 183:4-8].

627. U.S. Patent No. 5,461,303 does not show an oscillator with an output labeled “D<sub>MAX</sub>” or “maximum duty cycle signal”. [(9/24/07 Ineq. Conduct Trial Transcript, Horowitz) 183:4-8].

4. **Power Integrations cannot now argue that Prior Art Figure 1 included “a frequency variation circuit that provides a frequency variation signal.”**

628. In response to the Examiner’s rejection of claim 29 and observation that Prior Art Figure 1 disclosed a frequency variation circuit as claimed in Power Integrations’ ‘851 Patent, the Applicants never suggested that the frequency variation signal must be internal. [(9/24/07 Ineq. Conduct Trial Transcript, Horowitz) 181:18-181:24]

629. During the prosecution of the application leading to the ‘851 Patent, the Applicants never said that the frequency variation signal must be cyclic. [(9/24/07 Ineq. Conduct Trial Transcript, Horowitz) 182:1-3]

630. During the prosecution of the application leading to the ‘851 Patent, the Applicants never said that the frequency variation signal must cause the oscillator to vary in frequency within a predetermined range. [(9/24/07 Ineq. Conduct Trial Transcript, Horowitz) 182:4-8]

II. **POWER INTEGRATIONS COMMITTED INEQUITABLE CONDUCT DURING THE PROSECUTION OF THE ‘- PATENT.**

631. U.S. Patent No. 6,229,366 (the “‘366 Patent”) is entitled “Offline Converter with Integrated Softstart and Frequency Jitter.” [DX103 (‘366 Patent)].

632. Balu Balakrishnan, Alex Djenguerian, and Leif Lund are named as the inventors of the ‘366 Patent. [DX103 (‘366 Patent)].

633. The three inventors of the ‘851 and ‘366 patents, Balu Balakrishnan, Alex Djenguerian, and Leif Lund, signed a Power Integrations invention disclosure form on March 26,

1998, March 25, 1998, and April 2, 1998, respectively. [PX326]

634. Mr. Balakrishnan admits that Power Integrations did not invent the idea of soft start. [(9/20/07 Trial Transcript, Balakrishnan) 941:23-942:1]

635. Mr. Balakrishnan admits that at the time he filed his '366 Patent application, a "soft start circuit" was not new. [(9/21/07 Ineq. Conduct Trial Transcript, Balakrishnan) 81:7-14]

636. Mr. Balakrishnan admits that at the time he filed his '366 Patent application, a soft start circuit that provides a soft start signal was not new. [(9/21/07 Ineq. Conduct Trial Transcript, Balakrishnan) 82:2-8]

**REDACTED**

**A. The '366 Patent Is Unenforceable Due to Power Integrations' Inequitable Conduct During the Prosecution of the Related '851 Patent.**

639. The '366 Patent is related to the '851 Patent, has the same figures, and an essentially identical specification. [Compare DX105 ('851 Patent) and DX103 ('366 Patent)]

640. The only difference between the two specifications is that the '366 Patent includes a "cross-reference" referring to the earlier '851 Patent. [Compare DX105 ('851 Patent) and DX103 ('366 Patent, 1:5-9)]

641. On May 18, 1998, Power Integrations filed the application that led to the '851 and '366 Patents. [DX105 ('851 Patent); DX106 ('851 Pros. Hist.); DX103 ('366 Patent); and DX104 ('366 Pros. Hist.)]

642. That original application claimed pulse width modulated (or "PWM") devices with a frequency variation circuit or a soft start circuit. [DX106 ('851 Pros. History, FCS0000370-79)]

643. The Examiner issued a “restriction requirement” that the soft start and frequency variation concepts were distinct inventions and only one could be prosecuted at a time. [DX106 (‘851 Pros. History, FCS0000423)]

644. Power Integrations cancelled the claims directed to a soft start circuit and elected to pursue the frequency variation concept in the ‘851 Patent application. [DX106 (‘851 Pros. History) at FCS0000431]

645. The original application ultimately issued as the ‘851 Patent. [DX105 (‘851 Patent) and DX106 (‘851 Pros. Hist.)]

646. On May 16, 2000, Power Integrations filed a “divisional application” directed to the cancelled soft start claims. [DX104 (‘366 Pros. History)]

647. The May 16, 2000 divisional application issued as the ‘366 Patent. [DX103 (‘366 Patent) and DX104 (‘366 Pros. History)]

648. The SMP211, SMP211 datasheet, SMP211 schematic withheld during the prosecution of the ‘851 Patent should also have been provided to the Patent Office during the prosecution of the ‘366 Patent. [(9/24/07 Ineq. Conduct Trial Transcript, Horowitz) 158:20-159:10]

B. **Power Integrations Intentionally Withheld All Information About Its Highly Material SMP240, SMP260 and SMP3 Prior Art.**

649. Mr. Balakrishnan admits that the SMP260 datasheet is not listed as a cited reference on the face of the ‘851 Patent. [(9/20/07 Trial Transcript, Balakrishnan) 947:18-948:11]

650. Mr. Balakrishnan admits that the SMP260 datasheet is not listed as a cited reference on the face of the ‘366 Patent. [(9/20/07 Trial Transcript, Balakrishnan) 947:18-948:21]

651. Power Integrations failed to provide a single datasheet, schematic, application note, article, or any other information about the SMP240 during the prosecution of the ‘366 Patent. [DX104 (‘366 Pros. History)]

652. Power Integrations failed to provide a single datasheet, schematic, application note, article, or any other information about the SMP260 during the prosecution of the '366 Patent. [DX104 ('366 Pros. History)]

653. Power Integrations failed to provide a single datasheet, schematic, application note, article, or any other information about the SMP3 during the prosecution of the '366 Patent. [DX104 ('366 Pros. History)]

654. The references cited in the '366 Patent and its file history contain no reference to the SMP240 product. [DX103 ('366 Patent) and DX104 ('366 Pros. History)]

655. The references cited in the '366 Patent and its file history contain no reference to the SMP260 product. [DX103 ('366 Patent) and DX104 ('366 Pros. History)]

656. The references cited in the '366 Patent and its file history contain no reference to the SMP3 product. [DX103 ('366 Patent) and DX104 ('366 Pros. History)]

657. Power Integrations did not provide the Patent Office with any information about its SMP260 devices during the prosecution of the '366 Patent. [(9/24/07 Ineq. Conduct Trial Transcript, Horowitz) 148:3-13]

658. Power Integrations did not provide the Patent Office with any information about its SMP260 schematic during the prosecution of the '366 Patent. [(9/24/07 Ineq. Conduct Trial Transcript, Horowitz) 148:3-13]

659. Power Integrations did not provide the Patent Office with any information about its SMP260 datasheet during the prosecution of the '366 Patent. [(9/24/07 Ineq. Conduct Trial Transcript, Horowitz) 148:3-13]

1. **Power Integrations' SMP240 and SMP260 Devices are highly material.**

660. Power Integrations' SMP260 was first available in the early 1990's. [(9/19/07 Trial Transcript, Balakrishnan) 909:2-5]

**REDACTED**

662. Mr. Balakrishnan managed the group that designed the SMP260 and is familiar with that device. [(9/19/07 Trial Transcript, Balakrishnan) 902:12-18]

663. Mr. Balakrishnan admits that there is no dispute that the SMP260 is, in fact, prior art to Power Integrations' '851 and '366 Patents. [(9/20/07 Trial Transcript, Balakrishnan) 947:14-17]

664. Power Integrations expert, Bob Blauschild, admits that the SMP260 is prior art to Power Integrations '366 Patent. [(9/20/07 Trial Transcript, Blauschild) 1080:21-24]

**REDACTED**

**REDACTED**



**REDACTED**

**REDACTED**

685. Mr. Balakrishnan admits that the SMP260 had a soft start function. [(9/19/07 Trial Transcript, Balakrishnan) 902:19-21]

686. Power Integrations expert, Bob Blauschild, agrees that Power Integrations SMP260 has an internal, integrated soft start within it. [(9/20/07 Trial Transcript, Blauschild) 1081:5-8]

**REDACTED**

688. Power Integrations SMP260 includes “a soft start circuit that provides a signal instructing said drive circuit to disable said drive signal during at least a portion of said maximum time period.” [(9/24/07 Ineq. Conduct Trial Transcript, Horowitz) 142:19-143:9]

**REDACTED**

**REDACTED**

690. The SMP260 datasheet shows that there is a soft start circuit in the SMP260 that provides a signal instructing the drive circuit to disable the drive signal during at least a portion of a maximum time period. [(9/24/07 Ineq. Conduct Trial Transcript, Horowitz) 143:10-13, 144:21-145:20]

691. The SMP260 schematic shows that there is a soft start circuit in the SMP260 that provides a signal instructing the drive circuit to disable the drive signal during at least a portion of a maximum time period. [(9/24/07 Ineq. Conduct Trial Transcript, Horowitz) 143:10-13, 144:21-145:20]

692. An article by Richard Keller concerning the SMP260 device was published at the Seventh Annual Applied Power Electronics Conference and Exposition, which took place February 23-27, 1992, in Boston, Massachusetts. [DX 69]

693. The Keller article shows that there is a soft start circuit in the SMP260 that provides a signal instructing the drive circuit to disable the drive signal during at least a portion of a maximum time period. [DX 69]

694. A published article by Keller (DX69) shows that there is a soft start circuit in the SMP260 that provides a signal instructing the drive circuit to disable the drive signal during at least a portion of a maximum time period. [(9/24/07 Ineq. Conduct Trial Transcript, Horowitz) 143:10-13, 144:21-146:4]

**REDACTED**

**REDACTED**

701. The SMP260 was more relevant than the art before the Examiner during the prosecution of the '366 Patent. [(9/24/07 Ineq. Conduct Trial Transcript, Horowitz) 154:4-155:1, 179:6-180:2]

702. The SMP260 datasheet was more relevant than the art before the Examiner during the prosecution of the '366 Patent. [(9/24/07 Ineq. Conduct Trial Transcript, Horowitz) 154:4-155:1]

703. The SMP260 schematic was more relevant than the art before the Examiner during the prosecution of the '366 Patent. [(9/24/07 Ineq. Conduct Trial Transcript, Horowitz) 154:4-155:1]

704. The Keller article (DX69) was more relevant than the art before the Examiner during the prosecution of the '366 Patent. [(9/24/07 Ineq. Conduct Trial Transcript, Horowitz) 154:4-155:1]

705. The SMP260 is not cumulative with the cited art before the Examiner during the prosecution of the '366 Patent. [(9/24/07 Ineq. Conduct Trial Transcript, Horowitz) 154:4-155:1]

706. The SMP260 datasheet is not cumulative with the cited art before the Examiner during the prosecution of the '366 Patent. [(9/24/07 Ineq. Conduct Trial Transcript, Horowitz) 154:4-155:1]

707. The SMP260 schematic is not cumulative with the cited art before the Examiner during the prosecution of the '366 Patent. [(9/24/07 Ineq. Conduct Trial Transcript, Horowitz) 154:4-155:1]

708. The Keller article (DX69) is not cumulative with the cited art before the Examiner during the prosecution of the '366 Patent. [(9/24/07 Ineq. Conduct Trial Transcript, Horowitz) 154:4-155:1]

709. U.S. Patent No. 5,245,526 (DX1000) does not show the soft start circuitry from the SMP260 device. [(9/24/07 Ineq. Conduct Trial Transcript, Horowitz) 149:3-6]

710. U.S. Patent No. 5,245,526 (DX1000) does not include any circuitry or description of the soft start signal generation circuitry shown in the SMP260 datasheet. [(9/24/07 Ineq. Conduct Trial Transcript, Horowitz) 149:7-150:8]

711. U.S. Patent No. 5,245,526 (DX1000) was cited by the Examiner during the prosecution of the '366 Patent and was not provided by the Applicants to the Patent Office. [(9/24/07 Ineq. Conduct Trial Transcript, Horowitz) 150:13-23]

712. After the Examiner identified U.S. Patent No. 5,245,526 (DX1000) as being of interest, Power Integrations did not provide any information about the soft start structure shown in the SMP260. [(9/24/07 Ineq. Conduct Trial Transcript, Horowitz) 150:24-151:9]

713. The specification of the '366 Patent essentially provides a definition of "soft start circuit". [DX103 ('366 Patent, 2:65-67) [(9/24/07 Ineq. Conduct Trial Transcript, Horowitz) 139:15-140:7]

714. One of ordinary skill in the art at the time of the '366 Patent would understand that the claimed "soft start circuit" has particular structural elements. [(9/24/07 Ineq. Conduct Trial Transcript, Horowitz) 140:15-141:18]

715. The claims of the '366 Patent do not use the term "means for" in describing the

soft start circuit. [(9/24/07 Ineq. Conduct Trial Transcript, Horowitz) 141:19-142:1]

716. During the prosecution of the '366 Patent, the Applicants never told the Examiner that the soft start circuit element should be considered as a means-plus-function element.

[(9/24/07 Ineq. Conduct Trial Transcript, Horowitz) 142:2-7]

717. During the prosecution of the '366 Patent, the Examiner never told the Applicants that he was treating the soft start circuit element as a means-plus-function element. [(9/24/07 Ineq. Conduct Trial Transcript, Horowitz) 142:8-13]

718. During the prosecution of the '366 Patent, the Examiner never told the Applicants that they need not disclose soft start prior art for any reason. [(9/24/07 Ineq. Conduct Trial Transcript, Horowitz) 142:14-18]

719. Balu Balakrishnan is named as an inventor of U.S. Patent No. 5,245,526, which is assigned to Power Integrations. [DX1000]

720. Claim 8 of U.S. Patent No. 5,245,526 (DX1000) claims a "soft start means". [(9/24/07 Ineq. Conduct Trial Transcript, Horowitz) 151:10-152:19]

721. Unlike claim 8 of U.S. Patent No. 5,245,526 (DX1000), the "soft start circuit" claimed in the '366 Patent denotes structure to one of ordinary skill in the art. [(9/24/07 Ineq. Conduct Trial Transcript, Horowitz) 151:10-153:13]

722. If one of ordinary skill in the art had not assumed that the "soft start circuit" element of the claims of the '366 Patent was a means-plus-function element, the SMP260 would be relevant to an Examiner considering the claims. [(9/24/07 Ineq. Conduct Trial Transcript, Horowitz) 153:14-154:3]

723. If one of ordinary skill in the art had not assumed that the "soft start circuit" element of the claims of the '366 Patent was a means-plus-function element, the Keller article (DX69) would be relevant to an Examiner considering the claims. [(9/24/07 Ineq. Conduct Trial Transcript, Horowitz) 153:14-154:3]

724. If one of ordinary skill in the art had not assumed that the "soft start circuit" element of the claims of the '366 Patent was a means-plus-function element, the SMP260

datasheet would be relevant to an Examiner considering the claims. [(9/24/07 Ineq. Conduct Trial Transcript, Horowitz) 153:14-154:3]

725. If one of ordinary skill in the art had not assumed that the “soft start circuit” element of the claims of the ‘366 Patent was a means-plus-function element, the SMP260 schematic would be relevant to an Examiner considering the claims. [(9/24/07 Ineq. Conduct Trial Transcript, Horowitz) 153:14-154:3]

726. Even if the “soft start circuit” element of the claims of the ‘366 Patent was a means-plus-function element, the SMP260 would be relevant to an Examiner considering the claims. [(9/24/07 Ineq. Conduct Trial Transcript, Horowitz) 155:2-155:20]

727. Even if the “soft start circuit” element of the claims of the ‘366 Patent was a means-plus-function element, the Keller article (DX69) would be relevant to an Examiner considering the claims. [(9/24/07 Ineq. Conduct Trial Transcript, Horowitz) 155:2-155:20]

728. Even if the “soft start circuit” element of the claims of the ‘366 Patent was a means-plus-function element, the SMP260 datasheet would be relevant to an Examiner considering the claims. [(9/24/07 Ineq. Conduct Trial Transcript, Horowitz) 155:2-155:20]

729. Even if the “soft start circuit” element of the claims of the ‘366 Patent was a means-plus-function element, the SMP260 schematic would be relevant to an Examiner considering the claims. [(9/24/07 Ineq. Conduct Trial Transcript, Horowitz) 155:2-155:20]

730. Even if the “soft start circuit” element of the claims of the ‘366 Patent was a means-plus-function element, the SMP260 is not cumulative of art before the Examiner during the prosecution of the ‘366 Patent. [(9/24/07 Ineq. Conduct Trial Transcript, Horowitz) 155:21-156:8, 158:4-19]

731. Even if the “soft start circuit” element of the claims of the ‘366 Patent was a means-plus-function element, the Keller article (DX69) is not cumulative of art before the Examiner during the prosecution of the ‘366 Patent. [(9/24/07 Ineq. Conduct Trial Transcript, Horowitz) 155:21-156:8, 158:4-19]

732. Even if the “soft start circuit” element of the claims of the ‘366 Patent was a

means-plus-function element, the SMP260 datasheet is not cumulative of art before the Examiner during the prosecution of the '366 Patent. [(9/24/07 Ineq. Conduct Trial Transcript, Horowitz) 155:21-156:8, 158:4-19]

733. Even if the "soft start circuit" element of the claims of the '366 Patent was a means-plus-function element, the SMP260 schematic is not cumulative of art before the Examiner during the prosecution of the '366 Patent. [(9/24/07 Ineq. Conduct Trial Transcript, Horowitz) 155:21-156:8, 158:4-19].

2. **Power Integrations SMP3 is highly material prior art.**

734. Mr. Balakrishnan was personally involved in the design of Power Integrations' SMP3. [(9/21/07 Ineq. Conduct Trial Transcript, Balakrishnan) 99:23-100:3]

**REDACTED**

738. Power Integrations SMP3 includes "a soft start circuit that provides a signal instructing said drive circuit to disable said drive signal during at least a portion of said maximum time period." [(9/24/07 Ineq. Conduct Trial Transcript, Horowitz) 142:19-143:9]

739. An article written by Frank Goodenough describing Power Integrations' SMP3 device was published on March 22, 1990. [DX 17]

740. The Goodenough article states that "[t]he soft-start circuit [of the SMP3] consists of a current source and an internal capacitor connected to an intermediate stage of the error amplifier." [DX 17]

741. The Goodenough article shows that there is a soft start circuit in the SMP3 that provides a signal instructing the drive circuit to disable the drive signal during at least a portion of a maximum time period. [DX 17]



742. The Goodenough article (DX170) states that the SMP3 has a soft start circuit. [(9/24/07 Ineq. Conduct Trial Transcript, Horowitz) 183:9-23]

743. A published article by Goodenough (DX17) shows that there is a soft start circuit in the SMP3 that provides a signal instructing the drive circuit to disable the drive signal during at least a portion of a maximum time period. [(9/24/07 Ineq. Conduct Trial Transcript, Horowitz) 146:6-147:4]

744. Mr. Balakrishnan would have seen DX17, the “Off-Line PWM Switching Regulator IC Handles 3W” article by Frank Goodenough, when the article came out. [(9/21/07 Ineq. Conduct Trial Transcript, Balakrishnan) 96:14-97:8]

745. The SMP3 schematics confirm that the SMP3 included a soft start circuit. [(9/24/07 Ineq. Conduct Trial Transcript, Horowitz) 147:9-2]

746. If one of ordinary skill in the art had not assumed that the “soft start circuit” element of the claims of the ‘366 Patent was a means-plus-function element, the SMP3 would be relevant to an Examiner considering the claims. [(9/24/07 Ineq. Conduct Trial Transcript, Horowitz) 153:14-154:3]

747. If one of ordinary skill in the art had not assumed that the “soft start circuit” element of the claims of the ‘366 Patent was a means-plus-function element, the Goodenough article (DX17) would be relevant to an Examiner considering the claims. [(9/24/07 Ineq. Conduct Trial Transcript, Horowitz) 153:14-154:3]

748. If one of ordinary skill in the art had not assumed that the “soft start circuit” element of the claims of the ‘366 Patent was a means-plus-function element, the SMP3 datasheet would be relevant to an Examiner considering the claims. [(9/24/07 Ineq. Conduct Trial Transcript, Horowitz) 153:14-154:3]

749. If one of ordinary skill in the art had not assumed that the “soft start circuit” element of the claims of the ‘366 Patent was a means-plus-function element, the SMP3 schematic would be relevant to an Examiner considering the claims. [(9/24/07 Ineq. Conduct Trial Transcript, Horowitz) 153:14-154:3]

750. Even if the “soft start circuit” element of the claims of the ‘366 Patent was a means-plus-function element, the SMP3 would be relevant to an Examiner considering the claims. [(9/24/07 Ineq. Conduct Trial Transcript, Horowitz) 155:2-155:20]

751. Even if the “soft start circuit” element of the claims of the ‘366 Patent was a means-plus-function element, the Goodenough article (DX17) would be relevant to an Examiner considering the claims. [(9/24/07 Ineq. Conduct Trial Transcript, Horowitz) 155:2-155:20]

752. Even if the “soft start circuit” element of the claims of the ‘366 Patent was a means-plus-function element, the SMP3 datasheet would be relevant to an Examiner considering the claims. [(9/24/07 Ineq. Conduct Trial Transcript, Horowitz) 155:2-155:20]

753. Even if the “soft start circuit” element of the claims of the ‘366 Patent was a means-plus-function element, the SMP3 schematic would be relevant to an Examiner considering the claims. [(9/24/07 Ineq. Conduct Trial Transcript, Horowitz) 155:2-155:20]

754. Even if the “soft start circuit” element of the claims of the ‘366 Patent was a means-plus-function element, the SMP3 is not cumulative of art before the Examiner during the prosecution of the ‘366 Patent. [(9/24/07 Ineq. Conduct Trial Transcript, Horowitz) 155:21-156:8, 158:4-19]

755. Even if the “soft start circuit” element of the claims of the ‘366 Patent was a means-plus-function element, the Goodenough article (DX17) is not cumulative of art before the Examiner during the prosecution of the ‘366 Patent. [(9/24/07 Ineq. Conduct Trial Transcript, Horowitz) 155:21-156:8 and 158:4-19]

756. Even if the “soft start circuit” element of the claims of the ‘366 Patent was a means-plus-function element, the SMP3 datasheet is not cumulative of art before the Examiner during the prosecution of the ‘366 Patent. [(9/24/07 Ineq. Conduct Trial Transcript, Horowitz) 155:21-156:8, 158:4-19]

757. Even if the “soft start circuit” element of the claims of the ‘366 Patent was a means-plus-function element, the SMP3 schematic is not cumulative of art before the Examiner during the prosecution of the ‘366 Patent. [(9/24/07 Ineq. Conduct Trial Transcript, Horowitz)

155:21-156:8, 158:4-19]

3. **The SMP3, SMP240, and SMP260 are not cumulative of prior art before the Examiner during the prosecution of the '366 Patent.**

758. While the '366 Patent application was pending, Mr. Balakrishnan did not read all of the references cited on the face of the '851 patent. [(9/21/07 Ineq. Conduct Trial Transcript, Balakrishnan) 75:10-18]

759. Mr. Balakrishnan does not know who collected the references cited of the face of the '366 Patent. [(9/21/07 Ineq. Conduct Trial Transcript, Balakrishnan) 74:19-23]

**REDACTED**

763. The SMP3 was more relevant than the art before the Examiner during the prosecution of the '366 Patent. [(9/24/07 Ineq. Conduct Trial Transcript, Horowitz) 154:4-155:1]

764. The SMP3 datasheet was more relevant than the art before the Examiner during the prosecution of the '366 Patent. [(9/24/07 Ineq. Conduct Trial Transcript, Horowitz) 154:4-155:1]

765. The SMP3 schematic was more relevant than the art before the Examiner during the prosecution of the '366 Patent. [(9/24/07 Ineq. Conduct Trial Transcript, Horowitz) 154:4-155:1]

766. The Goodenough article (DX17) was more relevant than the art before the

Examiner during the prosecution of the '366 Patent. [(9/24/07 Ineq. Conduct Trial Transcript, Horowitz) 154:4-155:1]

767. The SMP3 is not cumulative with the cited art before the Examiner during the prosecution of the '366 Patent. [(9/24/07 Ineq. Conduct Trial Transcript, Horowitz) 154:4-155:1]

768. The SMP3 datasheet is not cumulative with the cited art before the Examiner during the prosecution of the '366 Patent. [(9/24/07 Ineq. Conduct Trial Transcript, Horowitz) 154:4-155:1]

769. The SMP3 schematic is not cumulative with the cited art before the Examiner during the prosecution of the '366 Patent. [(9/24/07 Ineq. Conduct Trial Transcript, Horowitz) 154:4-155:1]

770. The Goodenough article (DX17) is not cumulative with the cited art before the Examiner during the prosecution of the '366 Patent. [(9/24/07 Ineq. Conduct Trial Transcript, Horowitz) 154:4-155:1]

**C. Power Integrations Intentionally Withheld All Information About Its SMP240, SMP260, and SMP3 Devices**

771. The references cited in the '366 Patent and its file history contain no reference to the SMP240 product. [DX103 ('366 Patent); and DX104 ('366 Pros. Hist.)]

772. The references cited in the '366 Patent and its file history contain no reference to the SMP260 product. [DX103 ('366 Patent); and DX104 ('366 Pros. Hist.)]

773. The references cited in the '366 Patent and its file history contain no reference to the SMP3 product. [DX103 ('366 Patent); and DX104 ('366 Pros. Hist.)]

**a. Power Integrations' inventors knew of and withheld the SMP3, SMP240, and SMP260 from the Examiner.**

**REDACTED**

775. Power Integrations did not provide the Patent Office with any information about its SMP3 devices during the prosecution of the '366 Patent. [(9/24/07 Ineq. Conduct Trial

Transcript, Horowitz) 148:3-13]

776. Power Integrations did not provide the Patent Office with any information about its SMP3 datasheet during the prosecution of the '366 Patent. [(9/24/07 Ineq. Conduct Trial Transcript, Horowitz) 148:3-13]

777. Power Integrations did not provide the Patent Office with any information about its Goodenough article (DX17) during the prosecution of the '366 Patent. [(9/24/07 Ineq. Conduct Trial Transcript, Horowitz) 148:3-13]

778. Power Integrations never disclosed to the Patent Office that its prior art SMP3 device had been described as containing a soft start circuit. [(9/24/07 Ineq. Conduct Trial Transcript, Horowitz) 184:7-12]

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**REDACTED**

**REDACTED**

- b. Power Integrations sought to “bury” the Examiner with irrelevant prior art.

791. Power Integrations submitted over 75 references to the Examiner during the prosecution of the ‘366 Patent. [DX106 (‘851 Pros. Hist.) at FCS0000407-413; DX104 (‘366 Pros. History) at FCS0000288-290]

**REDACTED**

**REDACTED**

793. None of the over 75 references submitted by Power Integrations was considered significant enough by the Examiner to warrant any discussion in the prosecution history.

[DX104 ('366 Pros. History)]

**REDACTED**

**REDACTED**

**III. POWER INTEGRATIONS COMMITTED INEQUITABLE CONDUCT DURING THE PROSECUTION OF THE '791 PATENT.**

**REDACTED**

803. U.S. Patent No. 6,249,876 (the "'876 Patent") is entitled "Frequency Jittering Control for Varying the Switching Frequency of a Power Supply" DX99 ('876 Patent).

804. Balu Balakrishnan, Alex Djenguerian, and Leif Lund are named as the inventors of the '876 Patent. DX99 ('876 Patent).

805. The application leading to the '876 Patent was filed on November 16, 1998. DX99 ('876 Patent).

806. The '876 Patent issued on June 19, 2001. DX99 ('876 Patent).

807. The '876 Patent states that "the present invention relates to an off-line switched mode control system with frequency jittering." DX99 ('876 Patent, 1:6-7).

808. In the invention of the '876 Patent, "EMI emission is reduced by jittering the frequency of a switched mode power supply." DX99 ('876 Patent, 1:66-67).

809. Each of the claims of the '876 patent claim a circuit or method for varying the switching frequency of a power supply. DX99 ('876 Patent, *see* claims)

810. Power Integrations claims that the circuits and methods claimed in the '876 Patent will reduce electromagnetic interference or "EMI". DX99 ('876 Patent, 3:58-65)

811. Mr. Balakrishnan admits that the problem of EMI has was around before the '876 Patent. [9/19/2007 Trial, Balakrishnan Tr. 881:3-16]

812. Mr. Balakrishnan admits that Power Integrations did not invent the idea of power supplies. [9/20/2007 Trial, Balakrishnan Tr. 941:14-17]

813. Mr. Balakrishnan admits that Power Integrations did not invent the switch mode



power supply. [9/19/2007 Trial, Balakrishnan Tr. 878:2-4; 9/20/2007 Trial, Balakrishnan Tr. 941:18-22]

814. Mr. Balakrishnan admits that Power Integrations did not invent the idea of frequency jitter. [9/20/2007 Trial, Balakrishnan Tr. 942:2-4]

**REDACTED**

**A. The '851 Patent Is Prior Art To The '876 Patent.**

816. On or about March 25, 1998, the inventors of the '851 and '366 Patents prepared an Invention Disclosure Form ('851 Invention Disclosure) for an invention titled "Fully integrated softstart & frequency jitter for offline PWM switch". [Balakrishnan Exh. 16, PIF63314-24]

817. The '851 Invention Disclosure lists August 26, 1997 as the date of invention of the disclosed softstart and frequency jitter invention. [Balakrishnan Exh. 16, PIF63314]

818. At the time of the '851 Invention Disclosure, Power Integrations had simulations of the patented features, which were used in Power Integrations TOPSwitch III product. [Balakrishnan Exh. 16, PIF63315]

819. The '851 Invention Disclosure was a private company document. [Balakrishnan Exh. 16, PIF63314]

820. The '851 Invention Disclosure was signed by Balu Balakrishnan on March 26, 1998. [Balakrishnan Exh. 16, PIF63316]

821. The '851 Invention Disclosure was signed by Alex Djenguerian on March 25, 1998. [Balakrishnan Exh. 16, PIF63316]

822. The '851 Invention Disclosure was signed by Leif Lund on April 2, 1998. [Balakrishnan Exh. 16, PIF63316]

823. The '851 Invention Disclosure states the "EXPECTED DATE OF FIRST PUBLIC DISCLOSURE (EX. ARTICLE, PRESENTATION AT CUSTOMER ETC.)" as "March 1998". [Balakrishnan Exh. 16, PIF63315]

824. To implement frequency jitter, the '851 Invention Disclosure modulates the frequency of the PWM oscillator by adding a varying current generated by a low frequency oscillator to the main current source of the PWM oscillator: "The low frequency oscillator's sawtooth output is also used to generate a current source proportional to its output voltage. This current source is added to the main current source of the PWM oscillator to modulate its frequency. (see diagrams)" [Balakrishnan Exh. 16, PIF63316]

825. The '851 Invention Disclosure includes a diagram depicting the "Soft Start & Frequency Jitter Implementation." [Balakrishnan Exh. 16, PIF63319]

826. The "Soft Start & Frequency Jitter Implementation" shown in the diagram includes a PWM oscillator with a current source and a low frequency oscillator that generates a varying current that is added to the current source of the PWM oscillator, as well as additional soft start circuitry. [Balakrishnan Exh. 16, PIF63319]

**REDACTED**

**REDACTED**

841. The '876 Patent includes the diagram that was labeled "Figure 1. Frequency

Jittering Prior Art” in the ‘876 Invention Disclosure, relabeled “Figure 3” only (i.e., with the “Prior Art” label removed) and described as part of the “Description” of the ‘876 invention. [‘876 Patent, 4:26, 6:6-29; Figure 3]

842. The description of the PRIOR ART provided in the ‘876 Invention Disclosure was not included in the ‘876 Patent. [Balakrishnan Exh. 17, PIF63307; ‘876 Patent, 1:5-63 and generally]

843. The ‘876 Patent includes the diagram that was labeled “Soft Start & Frequency Jitter Implementation” in the ‘851 Invention Disclosure (with the soft start components removed), labeled “Figure 4” only and described as part of the “Description” of the ‘876 invention. [‘876 Patent, 4:26, 6:30-7:67; Figure 4]

**REDACTED**

- B. The ‘851 Prior Art Invention Anticipated Claim 11 Of The ‘876 Patent And Is Thus Highly Material Prior Art.

**REDACTED**

**REDACTED**

852. The '851 invention included each element of claim 11 of the '876 Patent.  
[Balakrishnan Exh. 16, PIF63316; '876 Patent, 9:14-22]

853. The '851 invention included the step of "generating a primary current" for the main oscillator: "This current source is added to **the main current source of the PWM oscillator.**" [Balakrishnan Exh. 16, PIF63316; '876 Patent, 9:16]

854. The "Soft Start & Frequency Jitter Implementation" diagram of the '851 invention shows a main oscillator with a primary current source. [Balakrishnan Exh. 16, PIF63319; '876 Patent, 9:16]

855. The '851 invention included the step of "cycling one or more secondary current sources to generate a secondary current which varies over time": "**The low frequency oscillator's sawtooth output is also used to generate a current source proportional to its output voltage.**" [Balakrishnan Exh. 16, PIF63316; '876 Patent, 9:17-18]

856. The “Soft Start & Frequency Jitter Implementation” diagram of the ‘851 invention shows a second low frequency oscillator, that generates a secondary current that varies over time. [Balakrishnan Exh. 16, PIF63319; ‘876 Patent, 9:17-18]

857. The ‘851 invention included the step of “combining the secondary current with the primary current to be received at a control input of an oscillator for generating a switching frequency which is varied over time”: “**This current source is added to the main current source of the PWM oscillator to modulate its frequency.**” [Balakrishnan Exh. 16, PIF63316; ‘876 Patent, 9:19-22]

858. The “Soft Start & Frequency Jitter Implementation” diagram of the ‘851 invention shows that the secondary current generated by the low frequency oscillator is combined with the primary current and received at the control input of the main oscillator, causing it to vary in frequency. [Balakrishnan Exh. 16, PIF63319; ‘876 Patent, 19-22]

C. **Power Integrations Intended To Deceive The Patent Office Regarding The Prior Art So That It Would Issue A Very Broad Claim.**

859. The inventors of the ‘876 Patent were also the inventors of the ‘851 invention. [‘876 Patent; ‘851 Patent]

860. The inventors of the ‘876 Patent knew about the ‘851 invention. [‘876 Patent; ‘851 Patent]

861. In late March and early April 1998 the inventors of the ‘851 invention signed the ‘851 Invention Disclosure indicating that the invention had been disclosed in March 1998. [Balakrishnan Exh. 16, PIF63316]

862. The inventors of the ‘851 invention and ‘876 Patent knew that the ‘851 invention was publicly disclosed two months before they invented the ‘876 invention on May 21, 1998. [Balakrishnan Exh. 16, PIF63315; Balakrishnan Exh. 17, PIF6331906]

**REDACTED**

**REDACTED**

867. Power Integrations did not disclose that the '851 invention was prior art in the application for the '876 Patent. ['876 Patent, 1:5-63]

**REDACTED**

869. Power Integrations described Figure 3, the relabeled Prior Art figure, as part of the '876 invention. ['876 Patent, 6:6-29]

**REDACTED**

**REDACTED**



**REDACTED**

874. Power Integrations “incorporated by reference” the entire ‘851 Patent into the ‘876 Patent. [‘876 Patent, 88012].

875. Power Integrations did not inform the Patent Office that they had publicly disclosed the ‘851 invention in March 1998. [‘876 Patent, 6:6-29 and generally; Balakrishnan Exh. 16, PIF63315]

876. Power Integrations did not inform the Patent Office that they had publicly disclosed the ‘851 invention at least two months before inventing the methods and circuits claimed in the ‘876 Patent. [‘876 Patent, 6:6-29 and generally; Balakrishnan Exh. 16, PIF63315; Balakrishnan Exh. 17, PIF63306-09]

877. Power Integrations intentionally deceived the Patent Office so that they could claim the prior art as part of the ‘876 invention. [‘876 Patent, 6:6-29, figure 3, claim 11; Balakrishnan Exh. 16, PIF63315; Balakrishnan Exh. 17, PIF63306-09]

**REDACTED**

**REDACTED**

884. Power Integrations inequitable conduct renders the entire '876 Patent unenforceable.

ASHBY & GEDDES

*/s/ Steven J. Balick*

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Steven J. Balick (I.D. #2114)  
John G. Day (I.D. #2403)  
Lauren E. Maguire (I.D. #4261)  
500 Delaware Avenue, 8<sup>th</sup> Floor  
Wilmington, Delaware 19801  
Telephone: 302-654-1888  
[sbalick@ashby-geddes.com](mailto:sbalick@ashby-geddes.com)  
[jday@ashby-geddes.com](mailto:jday@ashby-geddes.com)  
[lmaguire@ashby-geddes.com](mailto:lmaguire@ashby-geddes.com)

*Attorneys for Defendants  
Fairchild Semiconductor International, Inc  
and Fairchild Semiconductor Corporation*

*Of Counsel:*

ORRICK, HERRINGTON & SUTCLIFFE LLP  
G. Hopkins Guy, III  
Vickie L. Feeman  
Bas de Blank  
Gabriel M. Ramsey  
Brian H. VanderZanden  
1000 Marsh Road  
Menlo Park, CA 94025  
(650) 614-74000

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